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2 UNITED STATES DEPARTMENT OF AGRICULTURE
U.S. Agricultural Marketing Service,
Marketing Research Division //
Washington 25, D. C.



3 LIVESTOCK MARKETING MARGINS //

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by Gerald Engelmann
Head, Livestock Section
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Statements to the Seventh Annual Stockmen's Short Course,
Washington State College
Pullman, Washington, December 10-14, 1956

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Marketing Research Division
Washington 25, D. C.

MARKETING MARGINS FOR LIVESTOCK

by Gerald Engelmann
Head, Livestock Section

Statement to the Annual Stockmens' Short Course,
Pullman, Washington, December 10-14, 1956

It is indeed a pleasure for me to be meeting with you during your annual Stockmens' Short Course. This is the first occasion I have had to visit the campus of your State college, so I deem it a special privilege to participate in your discussions here this week.

The margins involved in the marketing of livestock have been matters of great interest to producers and consumers over the past several years. During any period of rapidly falling prices for livestock, consumers and producers both are apt to ask the question, "Why have retail prices not fallen as far as livestock prices?" We have had several such periods in the last few years. The rapid drop in beef cattle prices, 1952-53, and again during 1955, have provided occasions for the Department to make some special studies of margins and marketing beef cattle. First, to measure the accuracy of the assumption behind that question, and second, if it has some basis, to find out why.

The interest in marketing margins has a more ancient history. In the early twenties, shortly after World War I, the Department was asked to engage in some special studies of the marketing margins for livestock. In 1934, it was the interest of a number of livestock producer groups in this country, that provided the incentive for the Department to develop its so-called market-basket statistics which measure the changes in marketing costs for a number of agricultural commodities.

This interest is to be expected in an informed and literate society. For the returns received by producers for livestock, as well as the prices paid by consumers for meats and meat products are both affected by the size of the margins. When livestock prices are dropping rapidly, it is understandable that consumers and producers should be concerned about the responsiveness of retail prices to the rapidly declining farm prices of livestock.

The farm-to-retail marketing margin that we will be speaking of here measures the total spread between the average retail price paid by consumers for meat and the net farm value of equivalent quantities of livestock sold by producers. It's a return to the marketing agencies for their services. It covers all the costs of the distributing and processing services that are required to move live animals from the farm and convert them to meat in the form, and at the place, and time that consumers desire.

Here is a chart (fig. 1) which shows the marketing margins for marketing livestock from 1919 up to the present. Marketing margins declined somewhat after the postwar boom following World War I to a level around 14 cents per pound of meat during the first half of the decade of the twenties. In the latter half, they increased to around 16 cents per pound of meat. Margins declined during the depression to a low of 10.3 cents per pound of meat in 1933. They declined somewhat in the forties, but remained relatively steady at around 11 cents per pound through the war years, allowing for the fact that subsidies were paid to processors. As far as farmers and consumers were concerned, however, the effect of the subsidies was to lower the actual marketing margin paid by consumers to a low point of 7-1/2 cents per pound of meat in 1945. During the postwar inflation, retail prices of meat, farm values of livestock, and marketing margins shot up sharply from 1946 to 1948. Margins increased from 12.9 cents per pound to 20.6 cents per pound, almost 8 cents per pound in three years. Although both retail prices and the farm values of livestock fluctuated up and down during the postwar period, margins appeared to be more stable from year to year. Nevertheless, margins kept on increasing gradually until they reached a high figure of 25 cents per pound in 1955.

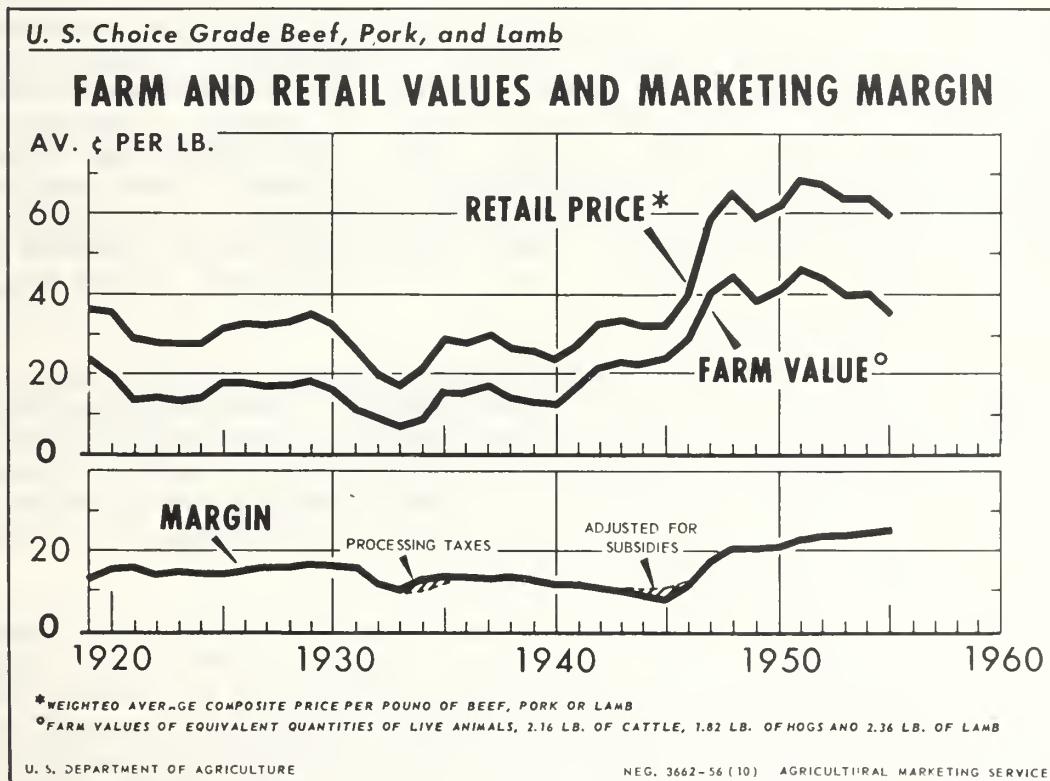


Figure 1

The postwar period provides us with an important lesson about the relationship between livestock and meat prices and marketing margins. During this period, meat prices and livestock prices followed generally parallel trends, moving up and down substantially in response to the changing conditions of supply and demand. Margins did not fluctuate in the same fashion during this period. The costs of providing marketing services (in other words, the costs of labor, rent, supplies, transportation, and equipment) tended to be more stable over short-run periods, although they increased during the 10-year period. The costs of providing marketing services are not closely related to livestock and meat prices.

What are the important marketing agencies that share in the returns for their services provided in moving livestock from the farm and converting it to meat in the retail grocery counter? We sometimes classify these into four rather broad functions or operational sequences in the entire marketing process. First is the marketing of the livestock, which includes the truck and rail transportation charges to the slaughtering plant, the expenses at terminal or auction markets, and the expenses of dealers who may be involved in the market transactions. The second is meatpacking, the slaughtering and processing function. Third is wholesaling, which also includes transportation of meat. Retailing is the fourth and final phase, an important phase which often is not well understood by farmers.

Dollars and cents distributed to these marketing functions expressed as percentages of the consumer's meat dollar, distribution of average retail price, and the percentage of the total marketing margin are shown in table 1 for the year 1947. In 1947 retailing took about 45 percent of the total marketing margin, wholesaling about 11-1/2 percent. Meatpacking took about 37 percent, and the marketing of live animals 6-1/2 percent. These magnitudes of marketing margins do not in any way indicate the relative efficiency of these various marketing operations. They simply indicate the relative importance of each of these functions from the cost standpoint in the total marketing job.

Let's take a closer look at some of the ingredient elements that go into these major component parts of the marketing margin. The 1947 study indicated that about two-thirds of the share of the marketing margin going to the marketing livestock function was required for the expenses of moving livestock to the packing house by either truck or rail. The remaining one-third was for the various livestock market handlers, terminal public markets, livestock auctions, concentration yards, and dealers.

Information reported by the meatpacking industry (table 2) indicates that on the average during the last 5-year period, about 77 cents of each dollar of packer-wholesaler sales was paid for livestock and raw materials. The remaining 23 cents comprised the meatpackers gross margin which covered the slaughtering and processing functions as well as the major share of the wholesaling function. Probably three-fourths or more of the wholesaling function is carried on by meatpackers. Of the packers' gross margin, about half of it is accounted for by wages and salaries. Supplies and containers took up about 16 percent, transportation about 11 percent, taxes 5 percent, and the remainder was attributed to depreciation, interest, and all other expenses, including almost 3 percent as net earnings.

Table 1.--Distribution of the consumer's meat dollar and of average retail price of meat, by marketing functions, and as a percentage of the total marketing margin for meat, by marketing functions, 1947 1/

Function	:	:	:
	: Consumer's	: Retail price	: Percentage of total
	: meat dollar	: per pound	: marketing margin
Marketing margin:	:	:	:
Retailing	:	16.2	44.9
Wholesaling	:	4.2	11.6
Meatpacking	:	13.4	37.1
Marketing livestock	:	2.3	6.4
Total margins	:	36.1	100.0
Returns to producer	:	63.9	35.4
Total	:	100.0	55.4

1/ Parr, Kathryn, Farm-to-retail Margins for Livestock and Meat, Bureau of Agricultural Economics, June 1949, pp. 3-4.

Table 2.--Breakdown of the meatpacking industry's sales dollar, 1951-1955 1/

Item	Percent	Percentage of packer's gross margin
	<u>Percent</u>	<u>Percent</u>
Total sales	100.0	
Cost of livestock and other materials	76.3	
Gross margin	23.7	100.0
Operating expenses:		
Wages and salaries	11.6	49.0
Supplies and containers	3.8	16.1
Transportation	2.6	11.2
Taxes	1.1	4.8
Depreciation	.6	2.5
Interest	.2	.8
All other expenses	3.1	12.8
Total	23.0	97.2
Total net earnings	.7	2.8

1/ Compiled from Financial Results of the Meatpacking Industry, American Meat Institute, for the years 1951-1955.

What about retailing costs? A study published in 1952 by the Department of Agriculture indicates that the average cost of retailing meat in 1950 for 85 selected stores in three different cities averaged about 10 cents per pound wholesale weight (table 3). Wages and salaries comprised about two-thirds of the total cost of retailing meat. The high proportion of the salaries and wages element in the total operating costs at retail stores is explained in the nature of the retailing operation. Large wholesale carcasses and cuts of meat are converted into many smaller cuts suitable for the retail trade. A considerable amount of skill is required in boning, cutting, trimming, and displaying meats. Likewise, considerable managerial ability is required in merchandising highly perishable products so that spoilage and dehydration are kept to a minimum.

Rent was the next high single cost item. Rent took about 8 percent of the total operating costs. The remaining items of expense included payments for lights, heat and power, licenses and insurance, depreciation of equipment, including delivery trucks, containers and wrapping supplies, maintenance, advertising, and other miscellaneous items. All told, these expenses took about 25 percent of the total operating costs.

At this point, I would like to inject a note of caution in interpreting marketing margins' information. Much has been said about the consumer's meat dollar, and of the farmers' share and the marketing share of the consumer's meat dollar. Most of the questions which led to the establishment of the Department's continuing marketing margins series were framed in terms of the consumer's meat dollar. It is important to remember that the percentage share of the consumer's dollar for meat received by marketing agencies and received by farmers can fluctuate greatly even though absolute or dollars and cents margins may remain fairly stable. For example, at a 75 cent average price for meat at retail, a 25 cent farm-to-retail price spread per pound of meat is a 33.3 percent margin. At a 50 cent average price for meat at retail, the same 25 cent price spread or margin is a 50 percent margin. What was once a one-third share of the consumer's dollar going to the marketing agencies can become a one-half share during a period of rapidly falling prices even though margins may be remaining quite stable. Marketing margins usually vary less in dollars and cents than farm prices of livestock over a period in which livestock prices change substantially, as they have several times in the past few years. For that reason, the farmers' share of the consumer's dollar tends to be less, percentagewise, when farm prices are low than when they are high.

Another cautionary note. The higher level of marketing margins since World War II and the gradually increasing trend in marketing margins since 1947 does not mean that marketing has become less efficient in recent years. Nor does it necessarily mean that profits of the various marketing agencies have increased excessively. The overall trends in marketing margins shown in the first chart probably reflect the changing costs of the ingredient elements used in providing marketing services, labor, rent, transportation, equipment, and supplies that are all involved in moving and converting the live animal on the farm to meat in the consumer's grocery carts. Operating costs have been increasing markedly since 1949. Transportation rates, for example, in 1955 were up 17 percent over 1949. Wage costs per pound of meat production in the

Table 3.--Total average cost for retailing a pound of meat, wholesale weight, by item, in 85 selected stores in these cities, 1950 1/

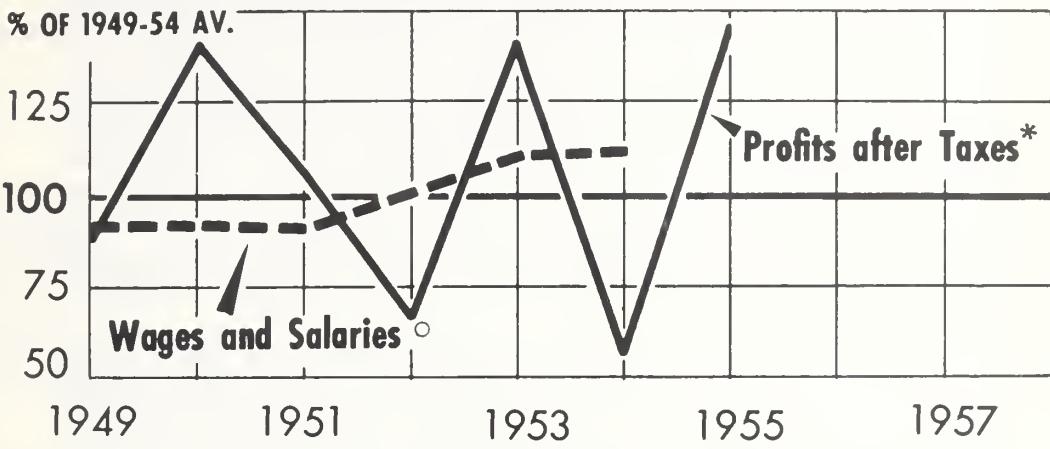
Item	Cost	Percentage of retailing costs
	Cents	Percent
Wages and salaries	6.5	66.0
Rent	.8	8.4
Other:		
Electricity, heat, water, and ice	.5	4.7
Licenses and insurance	.2	2.4
Depreciation	.3	3.0
Wrapping supplies	.4	4.2
Maintenance	.2	2.0
Advertising	.2	2.4
Miscellaneous	.7	6.8
Total other	2.5	25.5
Total	9.8	100.0

1/ Compiled from publication by Farstad, Edmund and Brensike, John V., Costs of Retailing Meats in Relation to Volume, Bureau of Agricultural Economics, August 1952, p. 5.

meat industry increased about 28 percent. Profits for 8 large meatpacking firms fluctuated quite widely during this period. Here is a chart (fig. 2) which shows the changes in wages and salaries and the changes in profit after taxes, all expressed as a percentage of sales, for the period 1949 to 1955. It must be remembered that the prices of the factors used by marketing agencies to provide marketing services, the labor, rent, equipment, supplies, etc., are determined in the nonagricultural segments of our economy, and are not closely related to or very much affected by changes in the farm prices of livestock.

As Percentage of Sales

**WAGES AND SALARIES AND NET PROFITS IN
MEATPACKING**



* Financial reports of 8 large meatpacking firms

○ "The Financial Results of the Meatpacking Industry 1954," Department of Marketing, American Meat Institute, Chicago 1955, compiled from table 6, p. 9.

AMS NEG. 4011-56 (3)

Figure 2

Certainly we have had improvements in efficiency. The shift from the small retail store of the prewar era to the modern day mass merchandising supermarkets represents a more efficient utilization of labor in retailing. The expansion of car and truck route salesman delivery of meat from the packing house direct to retail store door has reduced the amount of handling of product called for in the older Branch House type of wholesaling operation. Mass procurement on the part of privately owned and cooperative food chains has increased the efficiency of the transfer of meat from the packing house to the retail outlet. Fewer hours of labor are required to convert animals on the farm to meat, and deliver it to the households of America. But these improvements in efficiency have not been enough to overcome the rising costs of the several factors which must be used to provide the marketing services that the 168 million consumers of this country indicate they want and need to have.

What does all of this add up to? Factor costs are increasing on one hand, and, on the other, consumers are receiving more and more services with their food purchases and seem able and willing to continue to pay for them. Nevertheless, the increasing interest in marketing margins on the part of both producers and consumers makes it more important that we continue and expand our efforts to improve efficiency in marketing livestock and meats.

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Marketing Research Division
Washington 25, D. C.

MARKETING MARGINS FOR BEEF

by Gerald Engelman
Head, Livestock Section

Statement to the Annual Stockmens' Short Course,
Pullman, Washington, December 10-14, 1956

In this talk we are going to take a look at the trend of prices and margins for U. S. Choice grade beef at different stages in the marketing process. U. S. Choice grade beef accounts for about half of our total supply of block beef, and it is the only quality of beef for which we have enough data to make comparisons of this type. These comparisons, however, will give a broadly representative picture of margins and costs of marketing for most qualities of beef sold in fresh form. About 25 percent of all beef is sold as processed meat.

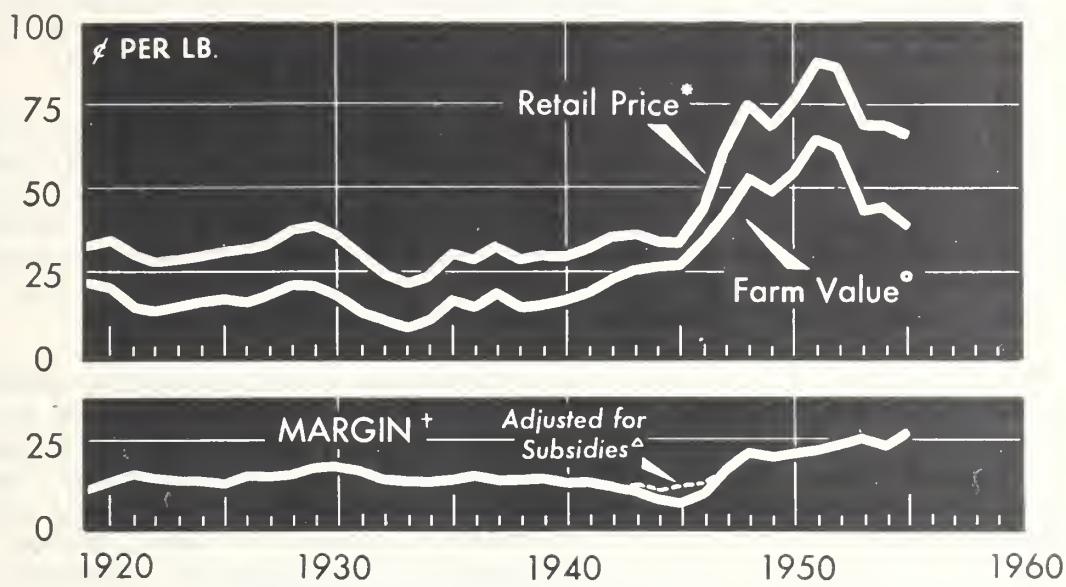
In computing the farm-to-retail margin for U. S. Choice grade beef, the price paid by consumers per pound of beef at retail is compared with the farm value of its equivalent weight, 2.16 pounds of U. S. Choice grade live animal.

Here is a chart (fig. 1) which gives the long run picture for beef marketing margins. The farm-to-retail price spread for U. S. Choice grade beef has widened greatly since 1946. Long before that, in 1929, annual farm-to-retail marketing margins had reached a high of 17.7 cents per pound of beef at retail. They declined through the depression years of the 1930's and tended downward through World War II, when prices were under the restraints of OPA ceilings. However, with the removal of price controls in 1946, retail beef prices, cattle prices, and marketing margins shot upward and continued to increase during 1947 and 1948. Marketing margins have tended to widen since 1949. This was a period when retail beef prices and cattle prices reached record levels in 1951 and then fell sharply in 1953. The margin was 21.3 cents per pound, retail weight, in 1949, 25.7 cents in 1955. However, margins fluctuated less than live cattle prices during the postwar period.

The second chart (fig. 2) shows the monthly changes in live and wholesale values and marketing margins for a shorter period of time, 1949 up to the present. In this chart, public stockyard market prices for Choice grade steers are compared with the value of 59 pounds of carcass beef obtained from 100 pounds of live steer, U. S. Choice grade, plus the value of the byproducts, the heart, liver, tallow, hide, etc. This chart shows the changing margins received by meatpackers for the slaughtering and wholesaling functions of the marketing job. Live-to-wholesale margins for U. S. Choice grade beef were low in late 1949 and in early 1950. This was during a period of relatively short supplies when the live market had some of the characteristics of a seller's market. Live-to-wholesale margins averaged \$2.14 in 1950, the low year for this period. The high year was 1953, with an average of \$2.93 per 100 pounds live weight.

U.S. Choice Grade Beef, Annual Data

FARM AND RETAIL VALUES AND MARKETING MARGIN



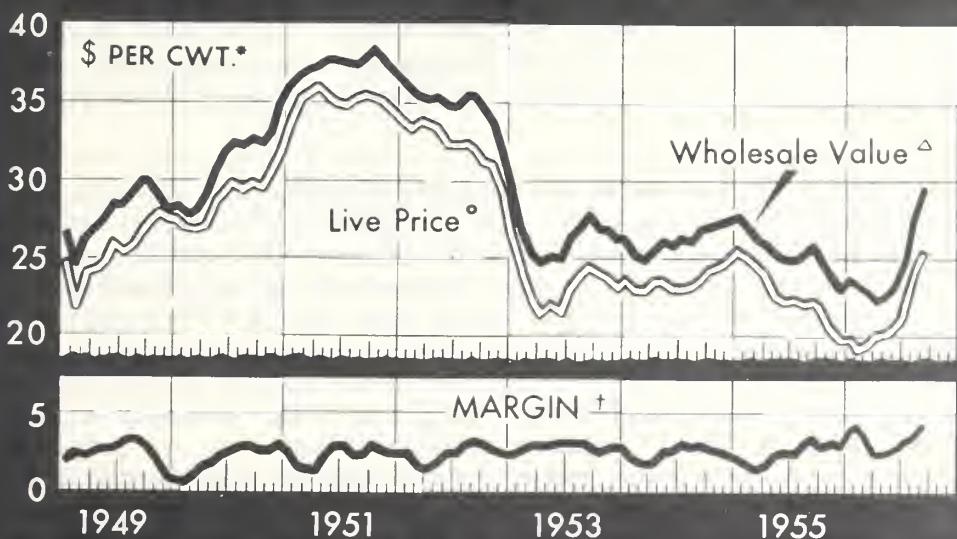
* Composite retail price of choice grade beef.
○ Value of 2.16 lbs. of live cattle (equivalent to 1 lb. of beef at retail) less byproduct allowance.
△ Subsidies paid to processors.
† Difference between the retail price per pound of beef and the farm value.

AMS NEG. 3041-56 (2)

Figure 1

U.S. Choice Grade Beef

LIVE AND WHOLESALE VALUES AND MARKETING MARGIN



* Live weight basis ○ 23 public stockyard markets
△ Value of 59 pounds of wholesale carcass beef (equivalent to 100 pounds of live weight) at five markets plus value of byproducts.
† Difference between the live price per 100 pounds of beef steer and wholesale value.

Figure 2

Live-to-wholesale margins were again low in the first quarter of 1955. They increased more than one dollar and were averaging around \$3.00 per 100 pounds in the latter half of that year. During the first quarter of 1956, live-to-wholesale margins made a record high of \$3.38 per 100 pounds live weight, declined substantially to about \$2.50 in the second quarter, but made a new record of \$3.59 per 100 pounds live weight in the third quarter.

Here is a chart (fig. 3) which pictures the many different retail cuts of beef the retailer fabricates from the carcass. These cuts sell at widely different prices. However, the more desirable and higher priced steak cuts represent only a small proportion of the total carcass. Some of the retail cuts sell at less than half the price paid per pound for the beef carcass. Other cuts must sell at prices more than twice the carcass price for the total value of the retail cuts to cover the total value of the carcass.

The next chart (fig. 4) shows the wholesale-to-retail marketing margin. In this chart, wholesale carcass prices are compared with the value of the eight-tenths of a pound of the average retail cuts obtained from one pound of wholesale carcass beef. This chart shows the changes in the retailer's margin in the period 1949 up to the present. The margin illustrated here covers the services retailers provide in fabricating carcasses into smaller cuts suitable for retail trade. It also covers an allowance for the losses in the weight of products because of the trimming off of excess fat, the boning of some cuts for roasts and stew beef, and dehydration or shrink.

Again it can be seen that the wholesale price and retail value followed generally parallel trends. There were some month-to-month fluctuations in margins, however, when there were certain lags in the adjustments of retail values to changes in wholesale prices. Margins increased during the first four years of this period. The retailer's margin was around \$12.00 during 1949 and around \$14.50 per 100 pounds carcass weight in 1952. Thereafter, the retailer's margin actually declined slightly. The alltime high quarter, however, was in the last quarter of 1955, about a year ago, when retailers' margins averaged \$15.80 per 100 pounds carcass weight. Retailers' margins then declined rather sharply to about \$14.00 in the first part of 1956, and then dropped to \$12.00 in the third quarter, the lowest retailers' margins since early 1950.

The next chart (fig. 5) shows the monthly changes and the overall farm-to-retail value and marketing margin. In this chart, the retail price of U. S. Choice grade beef is compared with the farm value of the equivalent 2.16 pounds of live cattle, less an allowance for the byproducts sold by packers. Marketing margins varied less in dollars and cents than did the farm prices of livestock over periods in which the livestock prices changed substantially, as they did from the higher levels of 1951-52 to the lower levels of 1953-56. The cost of providing marketing services (labor, rent, supplies, transportation, and equipment) remained relatively constant over short periods, as compared with the prices of livestock and meats, which often changed substantially in response to changing conditions of supply and demand. In short run situations, such costs are not closely related to livestock and meat prices. Nevertheless, there were some erratic month-to-month fluctuations in overall farm to retail margins, when retail prices failed to adjust quickly with changes in prices at the farm level. Variations of this kind have not been unusual in the past and are not peculiar to this particular period.

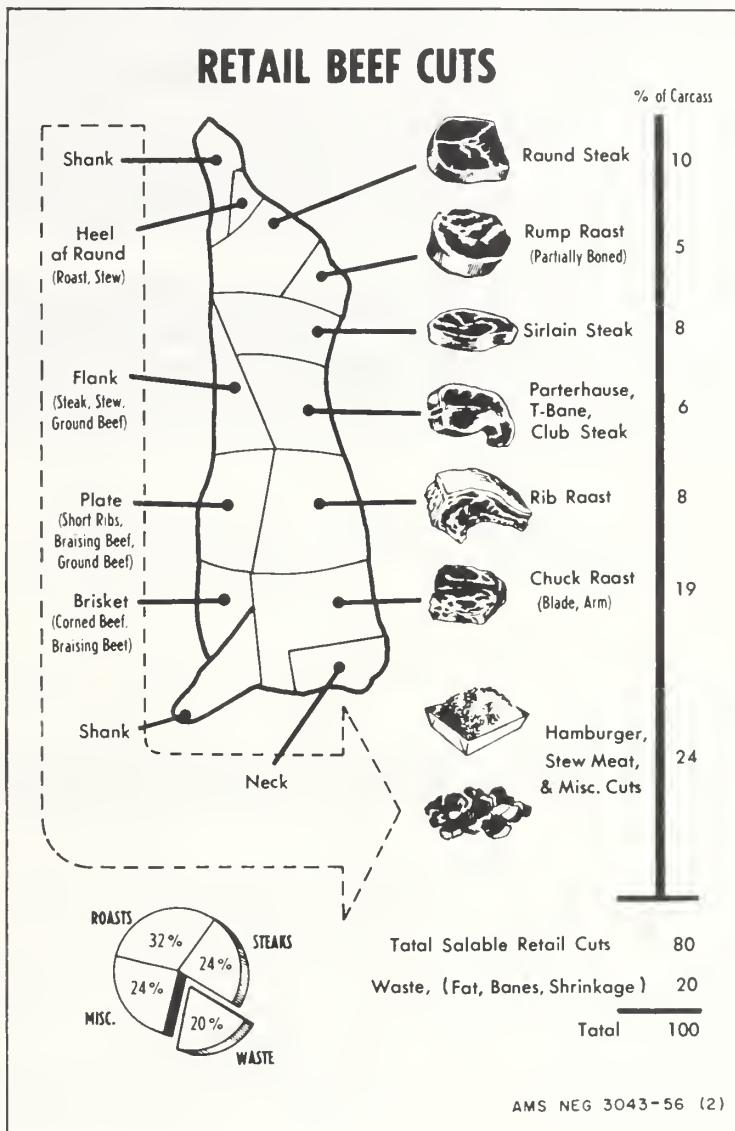


Figure 3

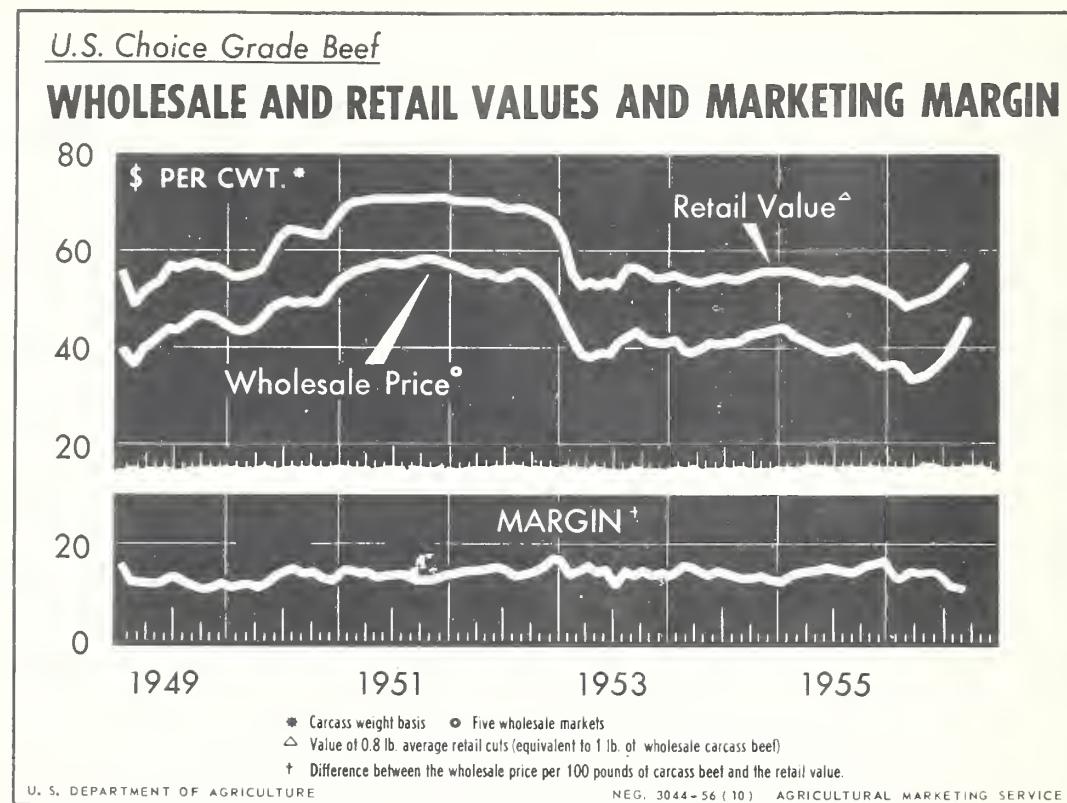


Figure 4

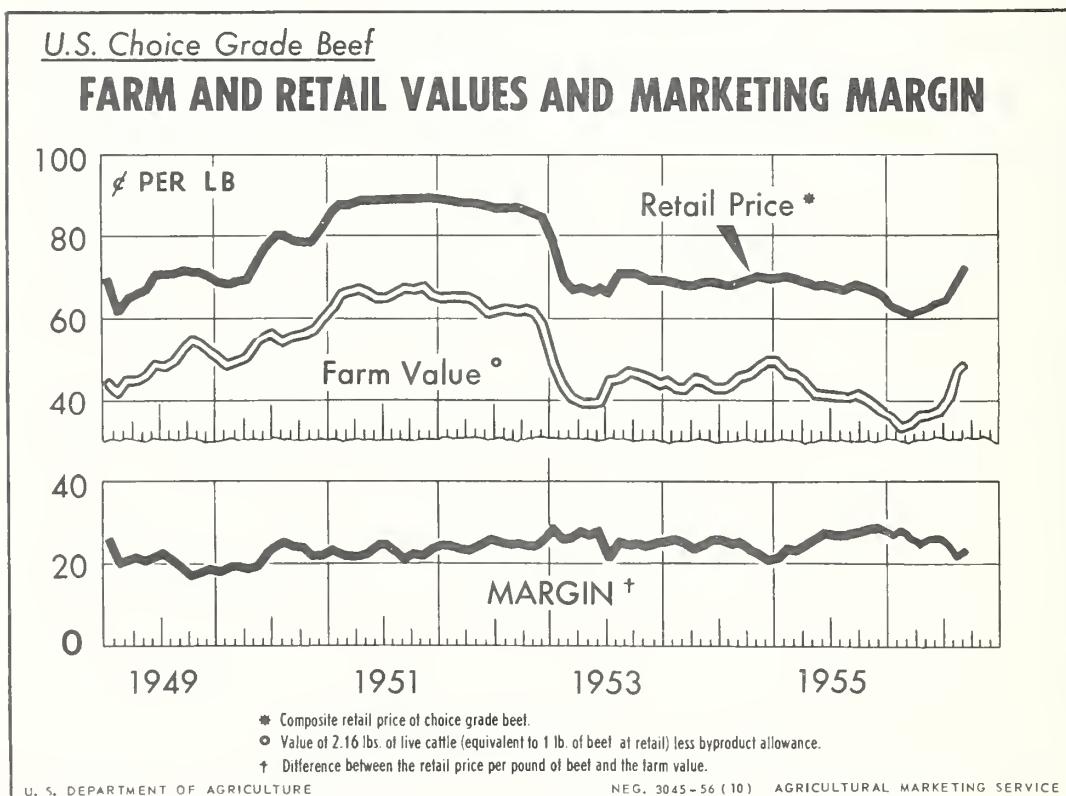


Figure 5

From 1954-56, however, some longer time lags in adjustment of farm-to-retail prices had some greater effects on marketing margins. During the rise in prices of high grade steers and heifers in the latter part of 1954, retail price of beef remained relatively stable. Margins narrowed substantially below the longer run average level. Marketing agencies were "squeezed" during this period. When prices dropped in 1955 and early 1956, margins widened to record levels. In this case, the failure of retail and wholesale prices to follow live prices more closely, or the successive narrowing and widening of margins during a period of first rising and then falling cattle prices, tended to increase the instability of farm prices of cattle. Both the upswing of cattle prices in the latter half of 1954 and the downswing in 1955 and 1956, were greater than they would have been if retail and wholesale prices had followed cattle prices more closely.

From the first quarter of 1955 to the first quarter of 1956, the farm-to-retail marketing margins increased 4.9 cents per pound on the basis of retail weight, from 22.5 cents in the first three months of 1955 to 27.4 cents during the first three months in 1956. About two-thirds of this increase was a recovery from the "squeeze" of 1954. This 4.9 cents at the retail level was equivalent to a widening of margins of about \$2.25 per 100 pounds on the live weight basis. About 87 percent of this widening of the marketing margin over this period of one year was accounted for at the live-to-wholesale level, 13 percent at the wholesale-to-retail level. Again, with rising beef and cattle prices in 1956, marketing margins have narrowed substantially from 27.4 cents per pound in the first quarter to 23.2 in the third.

The next chart (fig. 6) shows returns to ranchers and feeders in six different marketing situations during 1954 and 1955. These returns are expressed as percentages of the consumer's beef dollar. The six examples are: (1) and (2) feeder steers from a Texas ranch to sale of U. S. Choice grade beef at retail in New York City, (3) a feeder steer from a Wyoming ranch to sale of U. S. Choice grade beef at retail in Washington, D. C., (4) a steer raised and fed on an Illinois farm to sale of U. S. Choice beef at retail in Chicago, (5) a feeder steer from a Texas ranch to sale of U. S. Choice beef at retail in Los Angeles, and (6) a feeder steer from a Montana ranch to sale of U. S. Choice grade beef at retail in San Francisco.

There are some striking differences. The Texas steer which went to New York returned 15 cents of the consumer's beef dollar to the retailer. The Texas steer which went to Los Angeles returned almost 25 cents to the retailer. Packer-wholesaler's share of the consumer's dollar for the beef sold in New York was 11 cents. In Los Angeles, it was 2-1/2 cents.

Six Examples, in Different Situations, 1954 and 1955

WHERE THE CONSUMER'S BEEF DOLLAR GOES

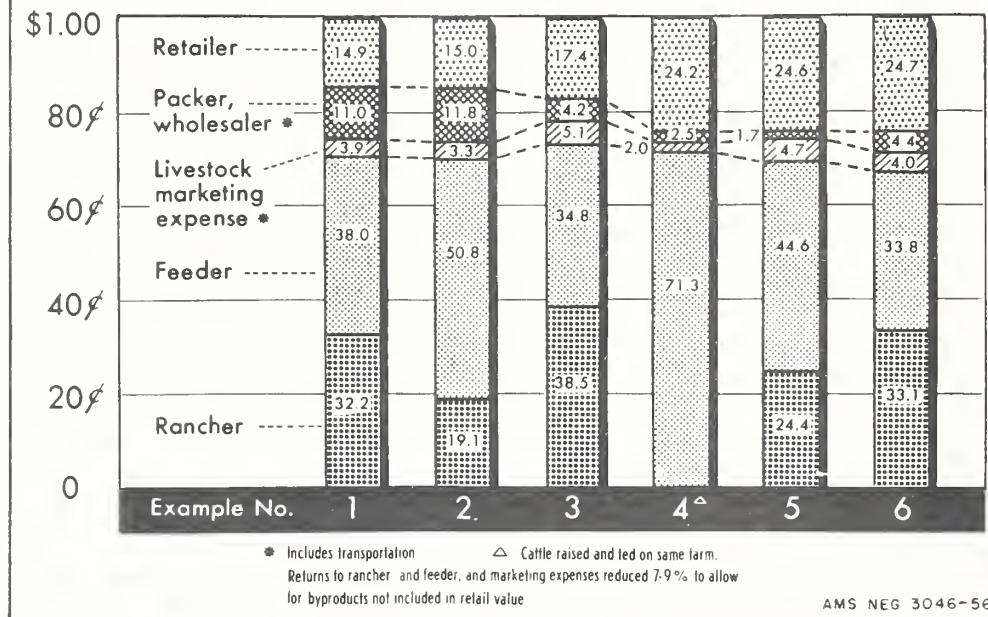


Figure 6

These data are not intended to suggest the average returns which might be expected from different marketing channels or retail outlets or different outlets. They are only illustrations of different marketing situations which tend to bring out the importance of the variations in net returns received by farmers and marketing agencies resulting in differences in time of marketing, location, marketing channel, and many other factors. Marketing is a highly dynamic affair. Had the farmer in each example decided to market his cattle a month earlier or a month later, his returns and returns to the packer-wholesaler and retailer might have been substantially different. These illustrations indicate that differences between costs and selling prices can vary greatly, yielding different margins for similar services at different times.

UNITED STATES DEPARTMENT OF AGRICULTURE
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MARKETING MARGINS FOR PORK

by Gerald Engelmann
Head, Livestock Section

Statement to the Annual Stockmens' Short Course,
Pullman, Washington, December 10-14, 1956

Just a year ago last week hog prices were completing the most rapid drop ever reported in the United States for any six month period. On June 21, 1955 top hogs were priced at \$22.75 per hundred pounds at Chicago. On December 7, 1955 top hogs were down to \$11.75. From the high in June to the low in December, less than six months later, the drop was \$11.00 per hundred pounds. Comparing monthly averages, average prices of barrows and gilts for Chicago during June were \$19.59 and during December \$10.73. This was a drop of about \$9.00 per hundred pounds in terms of monthly averages.

That rather dramatic price decline of last year was of more than ordinary concern to farmers, because it followed a year in which prices had been trending downward rather consistently. From April 1954, when the Chicago price of barrows and gilts averaged about \$26.25, to December 1955 marked a \$16.00 downswing in hog prices, the greatest 20-month price decline in the records of hog prices in this country. Such a sharp drop in prices often raises several questions in the minds of consumers and farmers about marketing margins. Consumers wondered if retail prices for pork had fully reflected declining prices for hogs. Farmers were concerned about the extent to which lower prices for hogs on the farm may have been associated with and, in part, caused by a general widening of the marketing margin.

Let us say at the outset that changing marketing margins were not a major contributing factor to this historic drop in hog prices. We had a change in the hog cycle when hog marketings increased greatly. There also was a greater than usual seasonal increase in hog marketings. This seasonal increase happened to coincide with a rather large slaughter of cattle during the late fall of 1955. Nevertheless, it is an appropriate question to ask to what extent did widening marketing margins play a part in this greatest of all price declines.

In order to provide a setting for the more recent picture, let's take a look at a chart which shows the long-time trends in marketing margins for pork from 1919 up to the present (fig. 1).

Marketing margins for pork were relatively stable from the period 1919 to the beginning of the great depression. Margins narrowed sharply during the depression years, reaching an alltime low of 8.2 cents per retail pound of pork in 1933. As prices tended to recover during the next two years, marketing margins widened and then tended to narrow gradually until World War II. When price ceilings were removed after World War II, retail pork prices, hog prices, and marketing margins all increased sharply. In one year, 1946 to

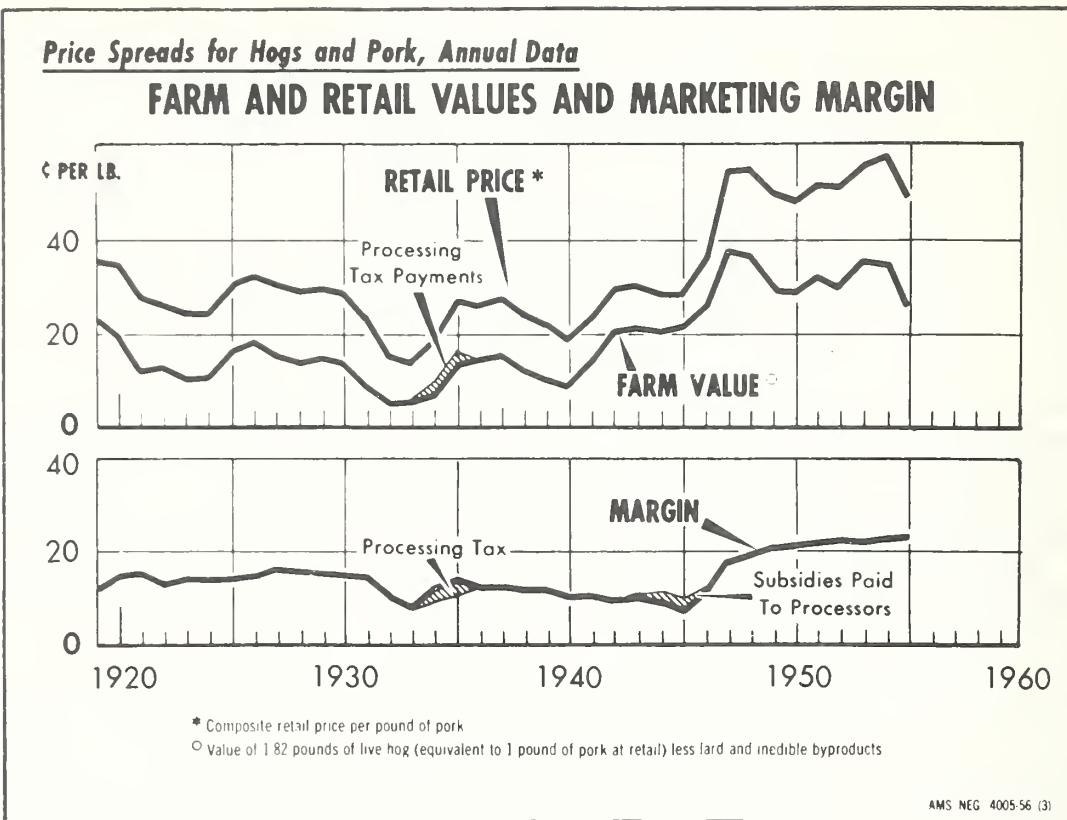


Figure 1

1947, margins widened from 12.7 cents per pound retail weight to 17.5 cents. This was the greatest annual increase in pork marketing margins we have ever experienced. The marketing margin for pork then tended to widen gradually to 23.7 cents per pound in 1955, which was a record high. However, the farm-to-retail marketing margin has declined somewhat in 1956.

The broad trends in marketing margins shown in this chart probably reflect the changing costs of providing marketing services which include labor, rent, transportation, equipment, and supplies that are involved in moving and converting the hogs on the farm to pork in the customer's grocery carts. Changes in marketing margins during the year, however, do not bear as close a relationship to changes in the costs of providing marketing services.

The next chart (fig. 2) shows monthly data since 1949 for live weight prices, wholesale values and the packer-wholesaler margin. The wholesale value is based on the prices of 47 pounds of major fresh and cured cuts which include hams, loins, bacon, picnic butts, and spare ribs, about 9 pounds of minor edible products, such as neck bones, trimming, feet, head meat, heart, and liver, and 15 pounds of lard. These are approximate yields of wholesale products from 100 pounds of live hogs. This chart also shows the gradual widening of margins during this entire period. Packer-wholesaler margins were about \$4.80 per hundred pounds in 1949, and averaged about \$5.50 in 1955. Generally speaking, wholesale values of pork roughly paralleled the trend in live hog prices, which

moved up and down over the period in response to seasonal and cyclical changes in hog marketings. Nevertheless, there were quite a number of erratic short run changes in margins. It's worthwhile to note also that there was a tendency for margins to reach a low point during the second quarter of the year. Margins usually reach their high point during the last quarter, although in two of the years, it was in the third quarter of the year. We will return to this seasonal aspect of wholesale margins in a moment.

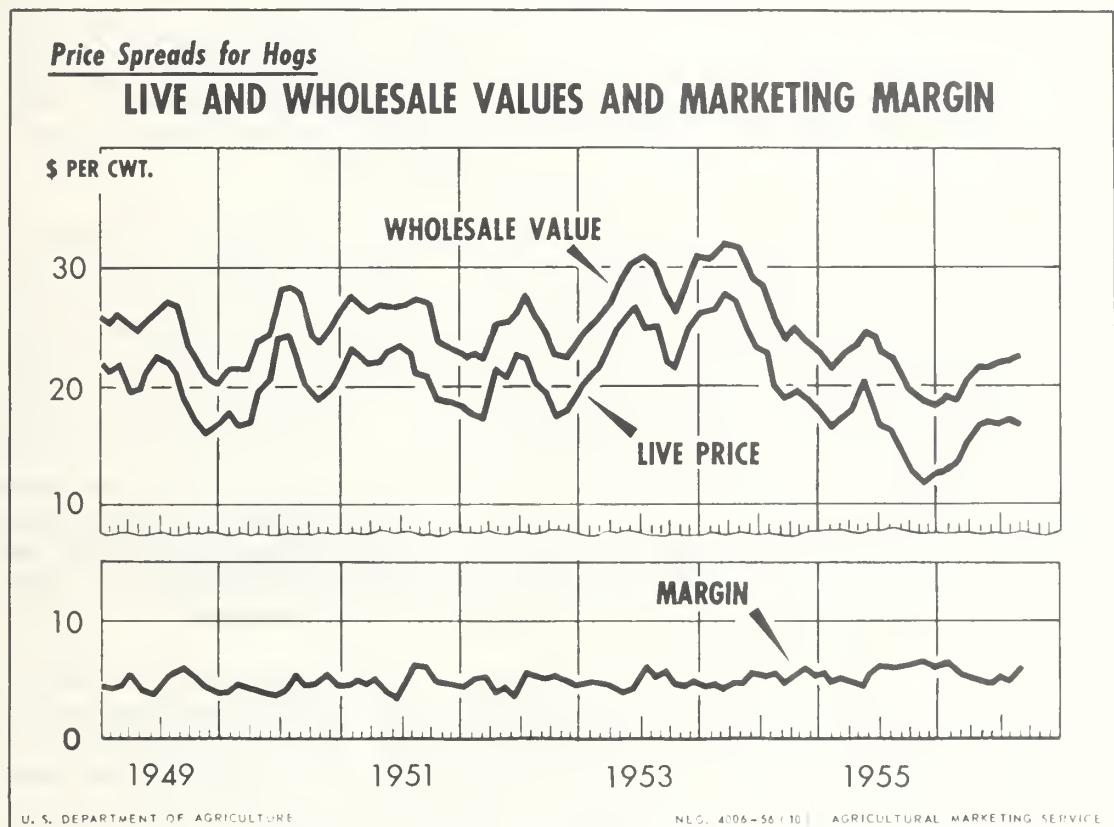


Figure 2

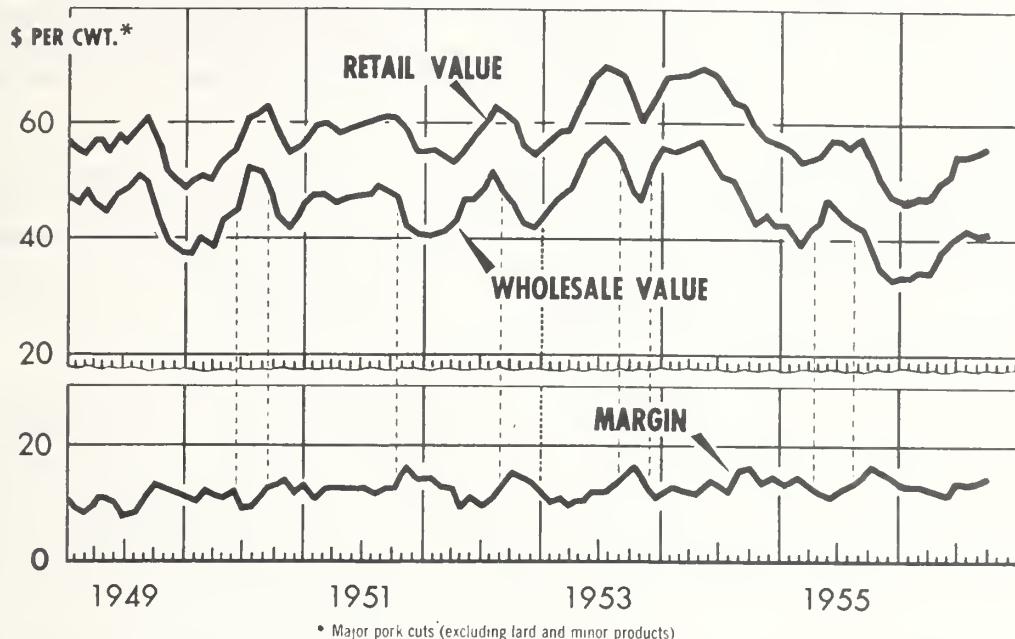
This next chart (fig. 3) compares the average retail price per pound of fresh and cured pork products with the price of wholesale cuts over the same period. Again we note a gradually rising trend in retailers' margins. Retailer margins were about 10-1/4 cents per pound of pork retail weight in 1949. They rose to about 13-3/4 cents in 1955. Although retail value and wholesale value of pork appear to follow generally parallel trends, there are nevertheless erratic month-to-month fluctuation in retail margins. These reflected the failure of retail prices to respond quickly to changes in wholesale prices. Some of these lags in adjustment of retail and wholesale prices are indicated by the dotted vertical lines in this chart. In 1953, for example, when wholesale prices were falling during the summer, retail prices lagged a month or two behind, and margins increased. Later in the fall, when wholesale prices went up, retail prices again lagged behind, and margins decreased. The reverse situation took place in the spring and summer of 1955 when wholesale prices went up in the spring, retail prices again lagged and retailer's margins were squeezed for a time. In the summer, however, when wholesale prices were dropping rather rapidly, retail prices again lagged for several months, and margins increased to new high levels.

In a moment we will try to give you an explanation for some of these lags in adjustments of retail and wholesale prices. This next chart (fig. 4) shows the retail price per pound of pork and the farm value of its equivalent to 1.82 pounds of live hogs and the overall farm-to-retail marketing margin for the period since 1949. Again we see the by now familiar generally parallel trends of retail prices of pork and farm values of live hogs. Because the costs of providing marketing services (labor, rent, supplies, transportation, and equipment) are not closely related to livestock and meat prices in the short run, marketing margins fluctuate less in dollars and cents than either farm prices of hogs or retail prices of pork. The gradually widening trend in overall marketing margins also shows up in this chart. Overall margins averaged 20.2 cents per pound of pork at retail in 1949 and 23.7 cents in 1955. Thus far in 1956, margins have been following the 1955 pattern.

Another tendency is the seasonal pattern of wider marketing margins in the latter half of the year than in the first half. On the average, the margins for converting 1.82 pounds of live hogs on the farm to one pound of pork at the retail store was about 1.8 cents more during the latter half of the year. This is equivalent to an increase of about \$1 per hundred pounds of live weight in the marketing bill in the late summer and fall. A part of this seasonal increase in marketing margins may be due to the changing number of live hogs marketed, which actually represents in a sense a changing demand for marketing services. With increased marketings, packers of pork have to expand their hog kill. This requires more hours of work per week. In most cases, it results in overtime pay. In this situation, packers have no problem at all in obtaining the supply of hogs they need. But they do often have a problem in handling all the hogs that are delivered to them. The live market then has a weaker under-tone. Packer-wholesaler spreads become wider during the fall when farmers begin selling their spring pigs in sizable numbers and when there is said to be a buyer's market.

Price Spreads for Pork

WHOLESALE AND RETAIL VALUES AND MARKETING MARGIN



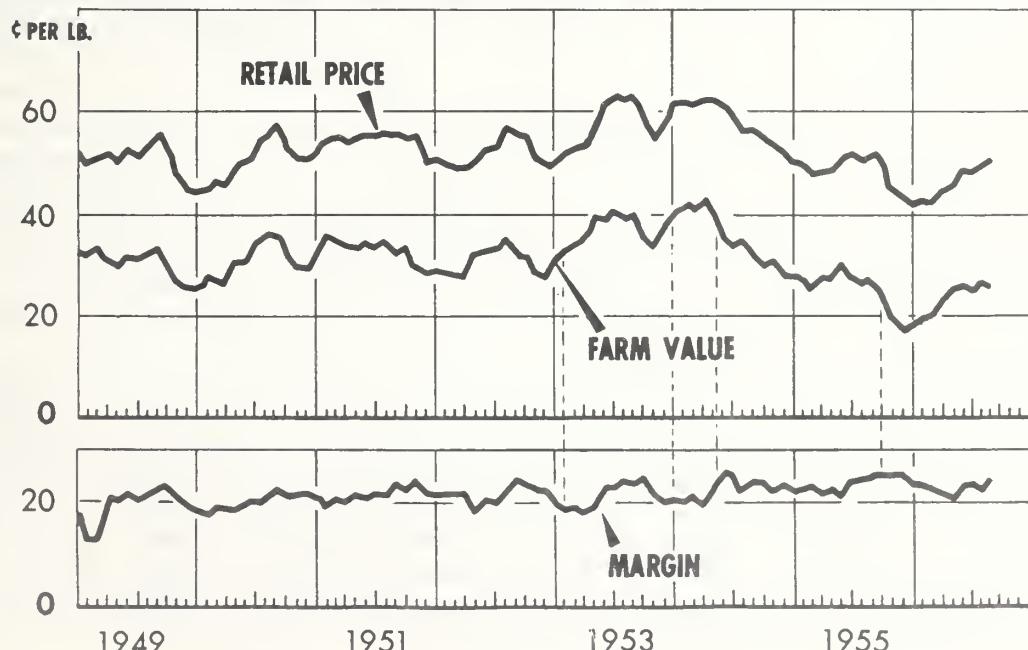
U. S. DEPARTMENT OF AGRICULTURE

NEG. 4007-56 (10) AGRICULTURAL MARKETING SERVICE

Figure 3

Price Spreads for Hogs and Pork

FARM AND RETAIL VALUES AND MARKETING MARGIN



U. S. DEPARTMENT OF AGRICULTURE

NEG. 4008-56 (10) AGRICULTURAL MARKETING SERVICE

Figure 4

In this situation, the marketing margin behaves as though it were a price for marketing services. The price for marketing services is determined by the supply and demand of marketing services. Large hog marketings represent a high demand for marketing services. The supply of marketing services, which is made up largely of plant facilities and labor supplies, is rather inflexible in the short run, especially in these postwar years of high levels of employment.

With a high demand for marketing services and a restricted supply of plants, labor, and equipment in the short run, the marketing margin, or the price for marketing services, tends to be rather high. The opposite situation is true when hog marketings are light. Then the demand for marketing services is low, and packers often must take a lower margin - or price - for the processing and wholesaling services they provide.

Still another factor influencing the seasonal pattern of the overall marketing margin is the tendency for lags in price adjustments between wholesale and retail prices. Why do changes in retail prices usually follow behind changes in wholesale prices, and wholesale prices behind live animal prices? Within any given year consumer demand for pork is relatively stable compared with the fluctuating seasonal supply. For this reason the focal point in pricing pork and live hogs appears to be the packer-buying level. This is because changes in pork supplies are first felt at the packer-buying level rather than at the retail level. Hog prices usually respond rather rapidly to pronounced changes in hog marketings. The changes in wholesale and retail prices usually follow behind changes in live hog prices, but not always by a corresponding amount. The first impact of changes of pork supplies is on packers' inventories. With small changes in hog marketing, inventories may be adjusted without a corresponding change in wholesale prices. Packers may try to ride out the small changes in live hog prices without any wholesale price adjustments. With substantial increases in hog marketings, however, packers must lower wholesale pork prices in order to move the increased volume of pork. If marketings decrease substantially, they raise wholesale prices which ration the smaller supplies among their customers.

Wholesale prices change by small amounts - 1/2 cent to 1 cent per pound. Retailers often ignore small wholesale price changes and wait until definite trends in wholesale prices become established before changing retail prices, usually by larger increments - 5 or 10 cents per pound. Retailers are often rather reluctant to change prices because they believe consumers react adversely to rapidly changing prices. They generally believe that consumers prefer a relatively stable price situation rather than one in which prices are constantly changing by small amounts. In periods of rising pork prices, retailers appear to be especially fearful of an adverse consumer reaction to the full force of the increasing price level. This is one important reason why retail prices lag behind wholesale prices during upward trends. When pork supplies increase and wholesale prices decline, there is little immediate direct economic incentive for retailers to lower their retail pork prices to move the larger quantity of pork. Retailers buy only that quantity of pork they believe they can sell. If the period of lower wholesale prices follows a period in which retail margins were "squeezed," the retailers may look at the drop in wholesale prices as a favorable market development, permitting them to regain what they believe

to be a proper margin. Immediate pricing decision of retailers are not compelled, nor are they persuaded, by the increasing inventories of wholesale pork which have to be moved.

During downward price changes, lower wholesale prices permit retail price adjustments. Competition from other retailers, who may be acting as price leaders, compel price adjustments. The price leading retailer tries to promote the sale of what has become relatively higher profit items, because of the lower wholesale prices, by lowering the retail prices. On the upswing of prices, rising wholesale prices are the compelling influence in retail price adjustments, while the price policies of competitors are the permissive elements in upward adjustments. The combined effects of price leadership by some retailers, and the actual changes in wholesale prices themselves tend to bring about a general change in the level of retail pork prices. Nevertheless, lags in price adjustments, seasonal changes, and other successive widenings and narrowings in marketing margins appear to be characteristic of our pork marketing system.

The tendency for retail prices to lag behind changes in wholesale and farm prices results in alternate squeezes and widenings of marketing margins over the short run. This tends to accentuate the instability of farm prices and creates special problems for producers.

A moment ago, we spoke of the fact that prices of barrows and gilts at Chicago dropped about \$9.00 per hundred pounds between June and December of last year. It appears that about \$2.50 of this \$9.00 price decline from June to December was caused by the failure of wholesale and retail prices to fall as fast as farm prices for hogs, or, in other words, by the widening of the farm-to-retail marketing margins.

There are some developments that indicate that this increasing tendency for wider margins during the period of heavier marketings may be a continuing feature of our marketing system. The margins for marketing hogs and pork might be expected to continue to behave as a price charged in response to the changing demands for marketing services. And the demands for marketing services are high seasonally when large numbers of hogs are rushed to market.

What are the answers to this problem? They may not be on the marketing side. What are needed are technological advances in the production of hogs which will enable year-round farrowing for the bulk of hog producers at no greater cost than the currently popular spring and fall farrowing seasons. In recent years, we have been moving slowly in that direction.

Let's direct our attention to another aspect of marketing margins, the distribution of the consumer's pork dollar to the various agencies involved in raising the animal and on through channels to the market at the place, time, and form in which the consumer wants it. The distribution of the consumer's pork dollar for six examples are shown in the next chart (fig. 5). These six examples represent different production and marketing programs for hogs farrowed in the fall of 1954 and spring of 1955 and marketed as slaughter hogs six to eight months later. They show the returns to various agencies for marketing of hogs and pork from: (1) an Iowa farm to consumers in New York City, March 1955,

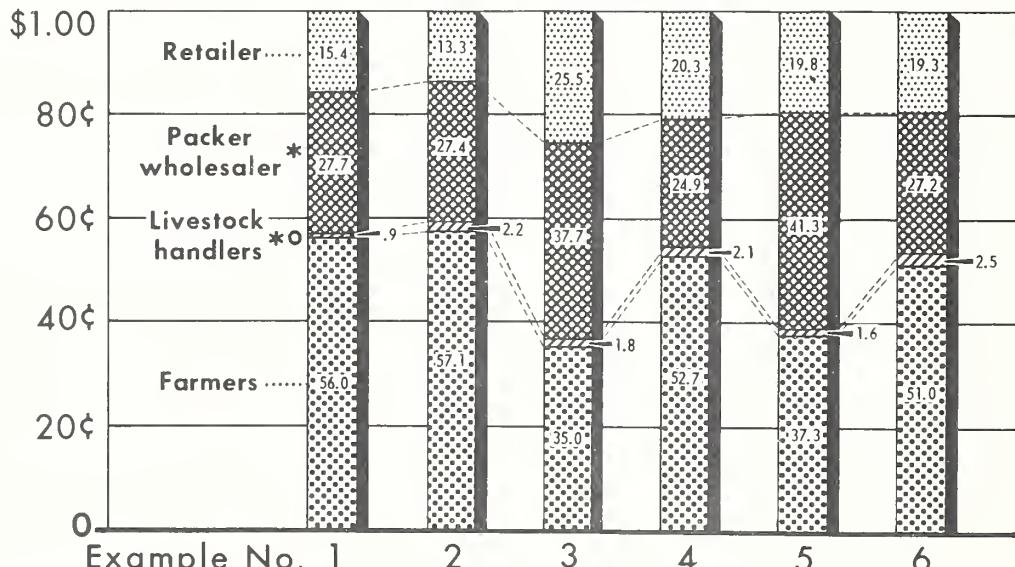
(2) an Illinois farm to consumers in Washington, D. C., April 1955, (3) a Nebraska farm to consumers in San Francisco, California, November 1955, (4) an Indiana farm to consumers in New York City, October 1955, (5) a South Dakota farm to consumers in Seattle, Washington, November 1955, and (6) an Illinois farm to consumers in Chicago, Illinois, September 1955.

These examples of marketing hogs and pork from farm to consumer tend to bring out the importance of variations in net returns received by farmers and marketing agencies resulting from differences in marketing channels used, location, time of marketing, and other factors. Had the farmer in each example decided to market his hogs one month earlier or one month later, his returns, and returns to the packer-wholesaler and retailer, might have been substantially different, and corollary to this, the distribution of consumer's dollar among agencies would have been different.

These examples illustrate, in terms of individual marketings of hogs and pork from farm to consumer, that differences between costs and selling prices can vary greatly, yielding different margins for similar services at different times.

Six Examples in Different Situations, 1955

WHERE THE CONSUMER'S PORK DOLLAR GOES



U. S. DEPARTMENT OF AGRICULTURE

NEG. 3661-56 (10) AGRICULTURAL MARKETING SERVICE

Figure 5



UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Marketing Research Division
Washington 25, D. C.

MARKETING MARGINS FOR LAMB

by Gerald Engelman
Head, Livestock Section

Statement to the Annual Stockmens' Short Course,
Pullman, Washington, December 10-14, 1956

As was the case with beef and pork margins, the general trend has been one of widening marketing margins for lamb since 1949. The pattern of year-to-year changes, however, has been somewhat different as we will note when we study the following charts.

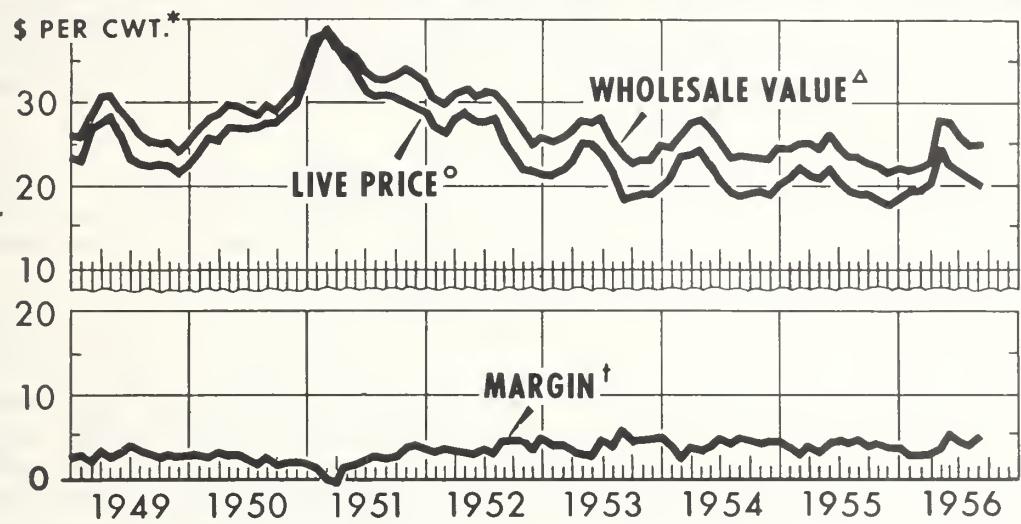
Our first chart (fig. 1) shows the margin for marketing lamb from the livestock market through the packer-wholesaler segment of the overall marketing process. This chart shows the changes in the returns to packers for the slaughtering and wholesaling functions they perform from 1949 up to the present. In this chart, 100 pounds of U. S. Choice grade woolled lambs are compared with the value of about 47 pounds of edible lamb and of the pelt and other byproducts yielded from 100 pounds of live lambs. Byproduct credits comprise an important return to lamb slaughterers. The pelts and other byproducts, both edible and inedible, often have a market value equal to or greater than 20 percent of the carcass value. Live-to-wholesale margins dropped from nearly \$3.00 in 1949 to returns which were actually negative in April 1951. Lamb margins increased substantially after that, and from 1953 to 1955 they remained relatively stable at or near \$4.00 per 100 pounds live weight except for seasonal changes.

Seasonal patterns of live-to-wholesale margins reflect some of the seasonal characteristics of the market supplies of lamb. Lamb supplies are usually rather short during the first few months of the year, and during such time, lamb prices strengthen. Because the rise in wholesale prices usually lags several weeks behind the rising lamb prices, live-to-wholesale margins narrow. Spring lambs come to market in increasing numbers in the summer and fall. During this period, the seasonal reductions in prices of live lamb, which usually precede the price reductions at the wholesale level, generally result in seasonal widenings in the live-to-wholesale margin.

The next chart (fig. 2) shows a wholesale-to-retail marketing margin. This chart shows the changing returns to retailers for the services they perform in fabricating the carcasses into smaller cuts, trimming off excess fat, boning some cuts for roasting and stewing meats, and grinding portions of the carcass into lamb patties, etc. In this chart the wholesale price of U. S. Choice grade lamb carcasses is compared with equivalent value of about 90 pounds of salable retail cuts of lamb which are obtained from 100 pounds of U. S. Choice grade carcasses.

U. S. Choice Grade Lamb

LIVE AND WHOLESALE VALUES AND MARKETING MARGIN



*LIVE WEIGHT BASIS

\circ IS PUBLIC STOCKYARD MARKETS

Δ VALUE OF 47 POUNDS OF WHOLESALE CARCASS LAMB (EQUIVALENT TO 100 POUNDS OF LIVE WEIGHT) AT FIVE MARKETS PLUS VALUE OF BYPRODUCTS

\square DIFFERENCE BETWEEN THE LIVE PRICE OF 100 POUNDS OF LAMB AND WHOLESALE VALUE

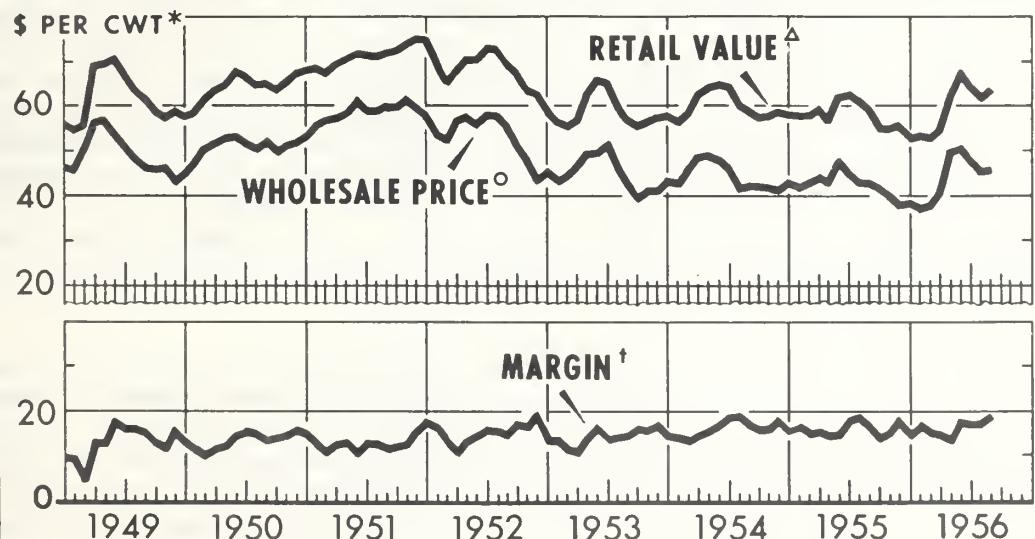
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Figure 1

U. S. Choice Grade Lamb

WHOLESALE AND RETAIL VALUES AND MARKETING MARGIN



* CARCASS WEIGHT BASIS. \circ FIVE WHOLESALE MARKETS.

Δ VALUE OF 0.9 LB. AVERAGE RETAIL CUTS (EQUIVALENT TO 1 LB. OF WHOLESALE CARCASS LAMB)

\square DIFFERENCE BETWEEN THE WHOLESALE PRICE PER 100 POUNDS OF CARCASS LAMB AND THE RETAIL VALUE.

U. S. DEPARTMENT OF AGRICULTURE

NEG. 3658-56 (10) AGRICULTURAL MARKETING SERVICE

Figure 2

Wholesale-to-retail margins for lamb trended generally upward from an annual average of about \$12.76 per 100 pounds in 1949 to an average of about \$15.72 in 1955. These prices are, of course, based on wholesale weight. This \$3.00 increase in margins at the retail level for the 7-year period would amount to \$1.40 increase in live weight terms. The seasonal patterns in wholesale-to-retail margins tended to follow the same general pattern as the live-to-wholesale margins, usually dropping during the spring months of the year and rising during the fall and winter.

The next chart (fig. 3) shows the overall marketing margins from the live animal at the farm to the retail prices of lamb in the retail stores. In this chart, average retail prices per pound of lamb are compared with the farm value of the equivalent 2.36 pounds of live lamb.

Farm-to-retail margins declined gradually through 1949 and 1950, and then dropped rather sharply during the first part of 1951. OPS ceiling price regulations were imposed early in 1951, preventing retail prices of lamb from rising at a rate comparable to the rising farm prices of live lambs. Margins were "squeezed," therefore, during this period as the prices of live lambs advanced while wholesale and retail prices of lamb were nearly stationary for a time. During the following period, the overall farm-to-retail margin increased rapidly from an abnormally low 9.2 cents per retail pound in the first quarter of 1951 to more than 26 cents in the last quarter of 1952.

During the next three years from 1953 through 1955, the overall marketing margins for lamb continued to increase as retail prices of lamb leveled off while the prices received by farmers for live lambs continued on a slight downward course.

Within the year, overall farm-to-retail margins for lamb tend to follow a seasonal pattern, dropping during the early part of the year and rising through the late summer, fall, and winter. This seasonal pattern is more apparent in the overall farm-to-retail margins than it was in the live-to-wholesale and wholesale-to-retail margins. For many processors, lamb is a specialty item, a side line enterprise to their more important beef and pork operations. These processors, nevertheless, attempt to keep their clientele supplied throughout the year even though the supply of lambs may be scarce. For such specialty items, comprising a small percentage of the total operations, processors can afford to go into the "red" for short periods of time in order to maintain a supply for their lamb purchasing clientele. When lamb supplies are more adequate later in the year, these same processors may find opportunities to recoup their earlier losses.

Here's a chart (fig. 4) which shows how the consumer's lamb dollar was distributed among the different marketing agencies and among farmers, feeders, and ranchers in six different marketing situations. These different marketing situations are as follows: (1) feeder lambs on a Wyoming ranch to U. S. Choice grade lamb at retail in Boston, January 1956, (2) Ohio spring lambs to U. S. Choice grade lamb at retail in New York, July 1956, (3) fed California lambs to a Los Angeles retailer in April 1956, (4) Texas feeder lambs to U. S. Choice

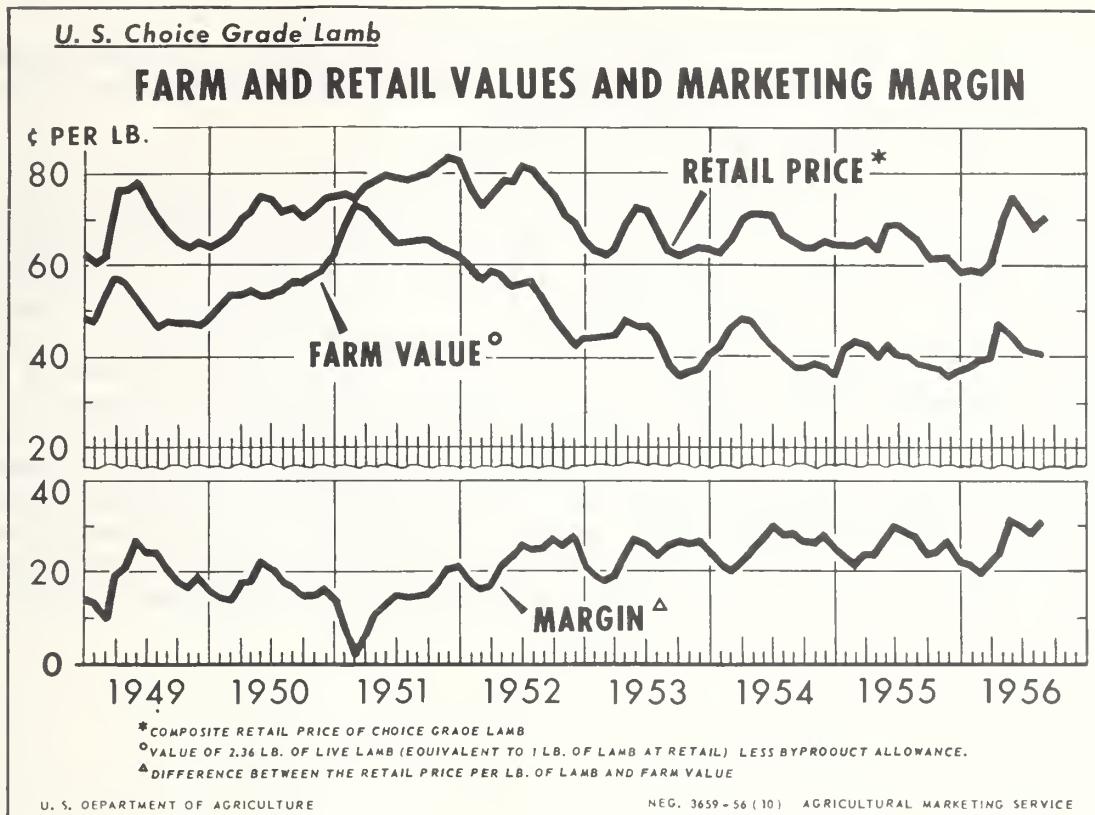


Figure 3

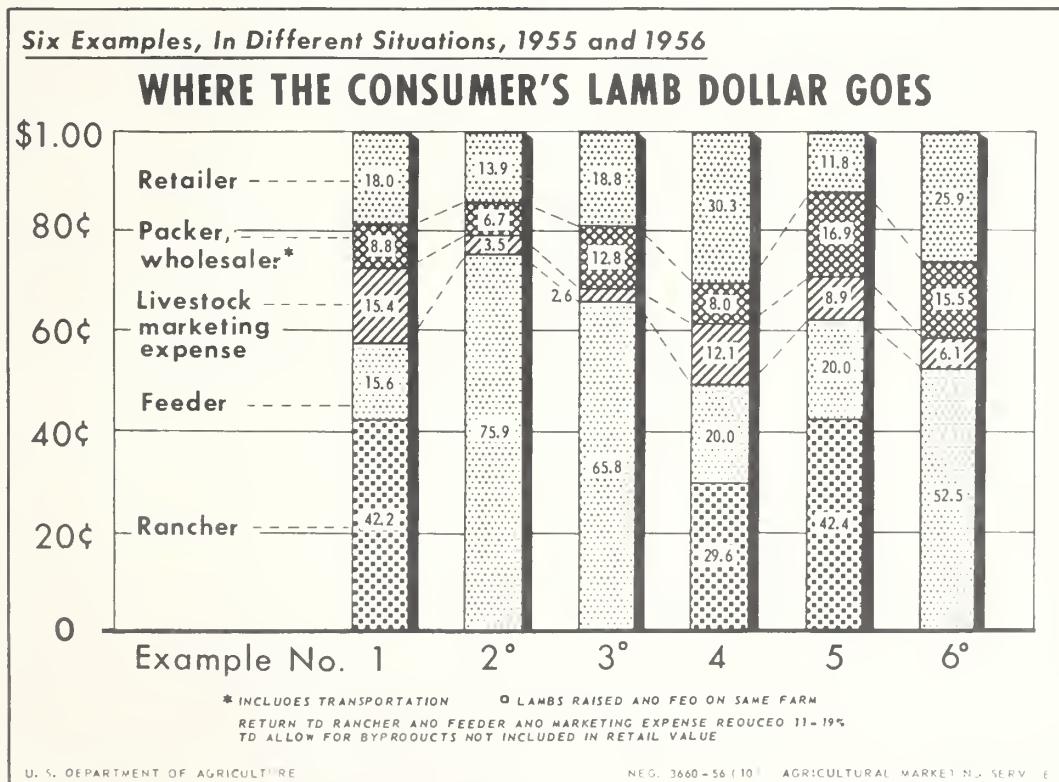


Figure 4

grade lambs at retail in Washington, D. C., December 1955, (5) feeder lambs on Idaho ranch to retail lamb in Portland, January 1956, (6) Montana spring lambs to retail in Chicago, September 1955.

This chart demonstrates that returns to the more important marketing agencies as well as the returns to farmers, feeders, and ranchers can differ greatly during the period of one year. In the fifth example, the retailer got about 12 percent of the consumer's dollar for lamb, while in the fourth, the retailer was returned over 30 percent. In the second marketing situation, the packer-wholesaler received about 7 cents of the consumer's dollar, while in the fifth, the packer-wholesaler got about 17 cents of the consumer's dollar. In the second situation, also, the producer received over three-fourths of the consumer's dollar while in the fourth the rancher and feeder together received about half. This serves to illustrate that the returns to the various marketing agencies and to producers can indeed be quite variable. Had the farmer in any particular marketing situation decided to market his lambs a month earlier or a month later, his returns, and the returns to the packer-wholesaler and to the retailer might have been substantially different than they are shown in this chart.



